## **CLAIMS**

1. A method for producing a triarylsulfonium salt represented by the general formula [4]:

$$\begin{array}{cccc}
& & & & \\
& & & & \\
R - S & A_1 & & [4] & & \\
& & & & & \\
& & & & & \\
R^1 & & & & \\
\end{array}$$

wherein, two R¹'s represent each hydrogen atom, halogen atom, alkyl group, haloalkyl group having 1 to 4 carbon atoms, alkoxy group, acyl group, hydroxyl group, amino group, nitro group or cyano group; R represents an aryl group which may have a substituent selected from a halogen atom, an alkyl group, a haloalkyl group having 1 to 4 carbon atoms, an alkoxy group, an alkylthio group, a N-alkylcarbamoyl group and a carbamoyl group, and the above substituent is different from one represented by the above R¹; and A¹ represents a strong acid residue,

comprising reacting a diaryl sulfoxide represented by the general formula [1]:

$$R^{1} \stackrel{\text{li}}{=} R^{1} \qquad [1]$$

wherein, R1 represents the same as above,

and an aryl Grignard reagent represented by the general formula [2]: RMgX [2]

wherein, X represents a halogen atom; R represents the same as above, in the presence of an activator with high affinity for oxygen of 3 to 7.5 equivalents relative to the above diaryl sulfoxide, and then reacting the resultant reaction mixture with a strong acid represented by the general formula [3]:

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 $HA_1$  [3]

wherein,  $A_1$  represents the same as above, or a salt thereof.

- 5 2. The method according to claim 1, wherein the activator with high affinity for oxygen is a halogenotriorganosilane.
  - 3. The method according to claim 1, wherein the activator with high affinity for oxygen is a halogenotrialkylsilane.
  - 4. The method according to claim 1, wherein the activator with high affinity for oxygen is chlorotrimethylsilane.
- 5. The method according to claim 1, wherein the amount of use of an activator with high affinity for oxygen is 1.2 to 3 equivalents relative to the aryl Grignard reagent represented by the general formula [2].
  - 6. The method according to claim 1, wherein a strong acid residue represented by  $A_1$  is an anion derived from a hydrohalic acid represented by the general formula [5]:

 $HX_1$  [5]

wherein, X1 represents a halogen atom,

a sulfonic acid represented by the general formula [6]:

 $R^2 - SO_3H$  [6]

wherein, R<sup>2</sup> represents an alkyl group, an aryl group or an aralkyl group, which may have a halogen atom, or a camphor group,

or an inorganic strong acid represented by the general formula [7]:  $HM_1Fn$  [7]

wherein,  $M_1$  represents a metalloid atom; and n represents 4 or 6.

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- 7. The method according to claim 6, wherein  $X_1$  is a chlorine atom or a bromine atom.
- 8. The method according to claim 6, wherein the metalloid atom
- 5 represented by  $M_1$  is a boron atom, a phosphorus atom, an arsenic atom or an antimony atom.